STATEMENT OF BASIS

Mueller Company
Albertville, Alabama
Marshall County
711-0013

This proposed renewal to the Title V Major Source Operating Permit (MSOP) is issued under the provisions of ADEM Admin. Code r. 335-3-16. The above-referenced applicant has applied to renew the existing Title V Permit, which was originally issued on January 4, 2000. The applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents, which were submitted on July 3, 2019, and are attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit. The application due date for renewal was July 3, 2019, therefore, the Department received the application by the due date. Additional information was requested on April 2, 2020 and received on May 8, 2020.

The facility is manned 24 hours per day on five days per week, or 6240 hours per year. Based on the Title V permit application, this facility is a major source for Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOC).

Mueller Company is a gray iron foundry. The primary product from this plant is fire hydrants; natural gas line "T" fittings are also manufactured at this facility. Scrap steel is transferred in batches to the furnaces for melting. Carbon and ferro-silica are added to produce gray iron that meets specifications. A portion of the metal melted is inoculated to produce ductile iron. The metal is then transferred to pouring locations where the metal is poured into molds. The molds are made of either green sand or lost foam. Once the molds are poured, the castings are placed on a conveyor line, where they are cooled by convection with ambient air. After the castings have cooled, they are sent to shotblast machines and grinders to remove the molding sand and molding seams. The castings then pass through a paint dip to provide rust inhibition. The hydrant bodies and parts are then painted in paint booths and open area paint stations.

The facility is subject to the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries found in 40 CFR Part 63, Subpart EEEEE and the NESHAP for Surface Coating of Miscellaneous Metal Parts and Products found in 40 CFR Part 63, Subpart MMMM. Several sources at the facility are also subject to Compliance Assurance Monitoring (CAM) for particulate matter.

The significant sources of air pollutants at the facility are as follows:

Three Ajax Induction Furnaces and One Coreless Induction Furnace with Baghouse
One Coreless Induction Melting Furnaces (10 TPH) with Baghouse
Ductile Iron Treatment with Baghouse

Pouring and Cooling
Lost Foam Foundry Sand Recycling System with Baghouse
Continuous Shotblast with Baghouse
Sand Recycling System with Baghouse
Disamatic Mold System with Baghouse
Ten Pedestal Grinders with Baghouse
Pneumatic Sand System (Sand Silos)
Two Wheelabrator Tumblast Systems with Baghouse
Fire Hydrant/Butterfly Valve Painting
Intermittent Shotblast with Bagfilter
Core Production

Facility Emissions (Potential and Actuals 2019)

Pollutant	Potential Emissions	Actual Emissions
*PM	131.7	42.51
SO_2	1.2	0.09
NO_x	4.9	0.04
CO	3.6	0.01
VOC	224.9	160.84
LEAD	< 1	0.04
Xylene	37.5	22.39
Toluene	29.3	17.49
MIBK	30.0	17.90
Methanol	<10	7.04
Ethyl Benzene	<10	4.50
Benzene	<10	1.53

* Includes PM_{10} and $PM_{2.5}$

The only notable change to the Mueller Company Title V renewal permit was the removal of Compliance Assurance Monitoring (CAM) requirements for the Electric Induction Furnaces EP001, Coreless Induction Melt Furnaces EP017, Ductile Iron Treatment EP018, Disamatic Mold System EP019 and Pouring and Cooling EP090. [40 CFR 64.5(b)(1)(i) states that emissions units subject to emission limitations or standards proposed by the Administrator after November 15, 1990, are exempt from CAM. Therefore, these units are not subject to the CAM requirements in 40 CFR Part 64.] These units were previously incorrectly identified as subject to the CAM requirements; therefore, the CAM requirements have been removed from the renewal permit. A more detailed explanation is available for the applicable units in each section.

Three Ajax Electric Induction Furnaces and One Coreless Induction Furnace with Baghouse EP001

In this process the facility melts iron using three Ajax Electric Induction Furnaces (Ajax Nos. 1, 2 & 3) and One Coreless Induction Furnace (Coreless No. 1). The emissions from these units are captured from the furnace lids by the emission ring dust collector EP001.

Applicability:

These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Three Ajax Induction Furnaces and One Coreless Induction Furnace share an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

These sources are subject to the applicable requirements of 40 CFR63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

These sources are subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

These sources are subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

> Particulate matter emissions from each Induction furnace shall not exceed 0.005 grains of PM per dry standard cubic foot (gr/dscf).
>
> 40 CFR §63.7690(a)(1)(i)
>
> Particulate matter emissions from the Three Ajax Electric Induction Furnaces and One Coreless Induction Furnace shall not exceed the lesser of the Anti-PSD limit of 7.0 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.
>
> OR

the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59 (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

For each segregated scrap storage area, bin or pile, the facility must either comply with the certification requirements in §63.7700(b) or prepare and implement a plan for the selection and inspection of scrap according to the requirements in §63.7700(c). The facility may have certain scrap subject to (b) and other subject to (c) provided that the scrap remains segregated until charge make-up.

40 CFR §63.7700(a)

Expected Emissions:

Expected particulate matter emissions from the Three Ajax Electric Induction Furnaces and One Coreless Induction Furnace are 4.6 lb/hr (20.2 TPY). The baghouse has a manufacturer's guaranteed emission rate of 0.005 gr/dscf.

Operation and Maintenance Requirements:

The facility must always operate and maintain the iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air

pollution control practices for minimizing emissions. The facility must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emission source subject to an emission limit in §63.7690(a)&(b) and the operation and maintenance requirements in 40 CFR §63.7710(a)&(b) as applicable.

40 CFR §63.7710 (a)&(b)

The facility must meet the general compliance requirements of §63.7720(a) through (c) as applicable. This includes development of a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3).

40 CFR §63.7720(a-c)

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emission limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years. The requirement to conduct performance tests every 5 years does not apply to an emission source for which a continuous emission monitoring system (CEMS) is used to demonstrate continuous compliance. The facility conducted performance testing on January 31, 2017. Therefore, the next scheduled testing for the unit is no later than January 31, 2022.

40 CFR §63.7731(a)

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the particulate matter emission limit found in §60.7690(a)(1) shall be determined by the following the test methods and procedures in §63.7732(b)(1)-(6), as applicable.

40 CFR §63.7732(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

The facility must for each capture and control device for an emission source subject to an emission limit in §63.7690(a), must demonstrate continuous compliance by complying with the requirements in §63.7745(a)(1) through (5) as applicable.

40 CFR §63.7745(a)

Emissions Monitoring:

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

Because opacity from the baghouse would not be expected to exceed the standard when the baghouse is operating correctly, the monitoring of the pressure drop across the baghouse would be sufficient monitoring. The facility will utilize visible emissions as a second performance indicator for the operation of the baghouse. The facility's daily visible emissions inspections will be performed according to 40 CFR Part 60 Method 9 requirements.

Rule 335-3-16-.05

The NESHAP for Iron and Steel Foundries found in 40 CFR Part 63, Subpart EEEEE requires specific monitoring for a baghouse as follows:

The facility must install, operate and maintain a CPMS according to the requirements in §63.7741(a) for each capture system subject to an operating limit in §63.7690(b)(1).

For each negative pressure baghouse equipped with a stack, the facility must at all times monitor the relative change in PM loadings using a bag leak detection system which meets the requirements in §63.7740(b).

In addition, for each baghouse, regardless of type, the facility must conduct the following inspections as specified in §63.7740(b)(1) through (8):

- Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
- Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
- Check the compressed air supply for pulse-jet baghouses each day.
- Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
- Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.
- Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. The facility does not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
- Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
- Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

40 CFR §63.7740(a)&(b)(1-8)

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all

problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

6. The facility must maintain records of the times the bag leak detection system sounded, and for each valid alarm, the time the facility initiated corrective action, the corrective action taken and the date on which corrective action was completed. Each record shall be maintained for a period of 5 years.

   40 CFR §63.7743(c)

7. The facility must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in the scrap selection and inspection plan required in §63.7700(c). The records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable. Each record shall be maintained for a period of 5 years.

   40 CFR §63.7744(a)

8. The facility must maintain a current copy of the operation and the maintenance plans required by §63.7710(b) onsite and available for inspection upon request. The plans must be kept for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of 40 CFR Part 63, Subpart EEEEE.

   40 CFR §63.7745(b)

9. The facility must report each instance of deviation which did not meet each emission limit in §63.7690 (including each operating limit) that applies. This includes periods of startup, shutdown, and malfunction as applicable.

    40 CFR §63.7746(a & b)

10. The facility must comply with the notifications, reports, and records requirements specified in §63.7750, §63.7751(a-d), §63.7752(a-c) and §63.7753(a-c) as applicable.

    40 CFR §63.7750, §63.7751, §63.7752 and §63.7753

Compliance Assurance Monitoring (CAM)

These units are subject to 40 CFR Part 63 Subpart EEEEE (National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries) which was promulgated on April 22, 2004. 40 CFR 64.5(b)(1)(i) states that emission units subject to emission limitations or standards proposed by the Administrator after November 15, 1990, are exempt from CAM. Therefore, these units are not subject to the CAM requirements in 40 CFR Part 64. These units were previously incorrectly identified as subject to the CAM requirements, which have now been removed from the renewal permit as requested by the facility.

Coreless Induction Melting Furnace (10 TPH) with Baghouse EP017

In this process the facility melts iron using One Coreless Induction Furnace (Coreless No. 2). The emissions from the coreless furnace lid and adjacent pouring hoods to coreless Nos. 1 & 2 as well as the traveling/mobile hood used at Ajax Nos. 1, 2 & 3 are captured f by the ductile dust collector EP017.

Applicability:

These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Three Ajax Induction Furnaces and One Coreless Induction Furnace share an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

These sources are subject to the applicable requirements of 40 CFR63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

Particulate matter emissions from the Coreless Induction furnace shall not exceed 0.005 grains of PM per dry standard cubic foot (gr/dscf).

40 CFR §63.7690(a)(1)(i)

Particulate matter emissions from the Coreless Induction Furnace shall not exceed the lesser of the Anti-PSD limit of 4.0 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.

OR

the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59\ (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

For each segregated scrap storage area, bin or pile, the facility must either comply with the certification requirements in §63.7700(b) or prepare and implement a plan for the selection and inspection of scrap according to the requirements in §63.7700(c). The facility may have certain scrap subject to (b) and other subject to (c) provided that the scrap remains segregated until charge make-up.

40 CFR §63.7700(a)

Expected Emissions:

Expected particulate matter emissions from the Coreless Induction Furnaces are 0.73 lb/hr or 3.2 TPY. This is based on the emission factors from the Ductile Iron Pipe Research Association (DIPRA) Emission Factor Report and 99.9% control efficiency as guaranteed by the manufacturer.

Operation and Maintenance Requirements:

The facility must always operate and maintain the iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The facility must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emission source subject to an emission limit in §63.7690(a)&(b) and the operation and maintenance requirements in 40 CFR §63.7710(a)&(b) as applicable.

40 CFR §63.7710 (a)&(b)

The facility must meet the general compliance requirements of §63.7720(a) through (c) as applicable. This includes development of a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3).

40 CFR §63.7720(a-c)

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emission limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years. The requirement to conduct performance tests every 5 years does not apply to an emission source for which a continuous emission monitoring system (CEMS) is used to demonstrate continuous compliance. The facility conducted performance testing on January 31, 2017. Therefore, the next scheduled testing for the unit is no later than January 31, 2022.

40 CFR §63.7731(a)

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the particulate matter emission limit found in §60.7690(a)(1) shall be determined by the following the test methods and procedures in §63.7732(b)(1)-(6), as applicable.

40 CFR §63.7732(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

The facility must for each capture and control device for an emission source subject to an emission limit in §63.7690(a), must demonstrate continuous compliance by complying with the requirements in §63.7745(a)(1) through (5) as applicable.

40 CFR §63.7745(a)

Emissions Monitoring:

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

Because opacity from the baghouse would not be expected to exceed the standard when the baghouse is operating correctly, the monitoring of the pressure drop across the baghouse would be sufficient monitoring. The facility will utilize visible emissions as a second performance indicator for the operation of the baghouse. The facility's daily visible emissions inspections will be performed according to 40 CFR Part 60 Method 9 requirements.

Rule 335-3-16-.05

The NESHAP for Iron and Steel Foundries found in 40 CFR Part 63, Subpart EEEEE requires specific monitoring for a baghouse as follows:

The facility must install, operate, and maintain a CPMS according to the requirements in §63.7741(a) for each capture system subject to an operating limit in §63.7690(b)(1).

For each negative pressure baghouse equipped with a stack, the facility must at all times monitor the relative change in PM loadings using a bag leak detection system which meets the requirements in §63.7740(b).

In addition, for each baghouse, regardless of type, the facility must conduct the following inspections as specified in §63.7740(c)(1) through (8):

- Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
- Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
- Check the compressed air supply for pulse-jet baghouses each day.
- Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
- Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.
- Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their

sides. The facility does not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

- Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
- Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

40 CFR §63.7740(a & b) and (c)(1)-(8) Subpart EEEEE

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

6. The facility must maintain records of the times the bag leak detection system sounded, and for each valid alarm, the time the facility initiated corrective action, the corrective action taken and the date on which corrective action was completed. Each record shall be maintained for a period of 5 years.

   40 CFR §63.7743(c)

7. The facility must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in the scrap selection and inspection plan required in §63.7700(c). The records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable. Each record shall be maintained for a period of 5 years.

   40 CFR §63.7744(a)

8. The facility must maintain a current copy of the operation and the maintenance plans required by §63.7710(b) onsite and available for inspection upon request. The plans must be kept for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of 40 CFR Part 63, Subpart EEEEE.

   40 CFR §63.7745(b)

9. The facility must report each instance of deviation which did not meet each emission limit in §63.7690 (including each operating limit) that applies. This includes periods of startup, shutdown and malfunction as applicable.

   40 CFR §63.7746(a & b)

10. The facility must comply with the notifications, reports, and records requirements specified in §63.7750, §63.7751(a-d), §63.7752(a-c) and §63.7753(a-c) as applicable.

    40 CFR §63.7750, §63.7751, §63.7752 and §63.7753

Compliance Assurance Monitoring (CAM)

These units are subject to 40 CFR Part 63 Subpart EEEEE (National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries) which was promulgated on April 22, 2004. 40 CFR 64.5(b)(1)(i) states that emission units subject to emission limitations or standards proposed by the Administrator after November 15, 1990, are exempt from CAM. Therefore, these units are not subject to the CAM requirements in 40 CFR Part 64. These units were previously

incorrectly identified as subject to the CAM requirements and they have been removed from the renewal permit as requested by the facility.

Ductile Iron Treatment with Baghouse EP018

In this process a portion of the melted iron is inoculated to produce ductile iron. Emissions from this process is collected by EP018 and a portion is collected at EP017.

Applicability:

This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Coreless Induction Furnace and Ductile Iron Treatment share an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

This source is subject to the applicable requirements of 40 CFR63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

Particulate matter emissions from the Coreless Induction Furnace and the Ductile Iron Treatment shall not exceed the lesser of the Anti-PSD limit of 4.0 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.

OR

the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59 (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Expected particulate matter emissions from the Ductile Iron Treatment are 1.78 lb/hr or 7.78 TPY. This is based on the DIPRA Emission Factor Report and a 99.9% control efficiency.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

In order to demonstrate compliance with the opacity standard for fugitive emissions, an opacity test must be conducted every six months in accordance with 40 CFR §63.7731(b). No daily periodic monitoring is required by Subpart EEEEE.

The facility must comply with the monitoring requirements specified in 40 CFR §63.7740 (a-g), §63.7741(a-f) and §63.7742(a-c) as applicable.

40 CFR §63.7740, §63.7741, and §63.7742

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

6. The facility must comply with the notifications, reports, and records requirements specified in §63.7750, §63.7751(a-d), §63.7752(a-c) and §63.7753(a-c) as applicable.

   40 CFR §63.7750, §63.7751, §63.7752 and §63.7753

Compliance Assurance Monitoring (CAM):

This subpart is applicable to an emission source provided the source meets the following criteria: it is subject to an emission limit or standard, it uses a control device to achieve compliance with the emissions limit or standard, and it has pre-controlled emissions from a regulated air pollutants that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source [40 CFR 64.2(a)]. These units do not have pre-controlled potential emissions greater than any major source threshold; therefore, Compliance Assurance Monitoring (CAM) does not apply.

Pouring and Cooling with Baghouse EP090

In this process ladles of molten metal are transported from each furnace by crane to pouring locations where molten metal is poured into molds. The facility uses two methods of mold casting, Green Sand and Evaporative Pattern Casting (Lost Foam). Emissions from this process are collected at EP090.

Applicability:

These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

These sources are subject to the applicable requirements of 40 CFR63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

Emissions Standards:

Particulate Matter

0.010 grains of PM per dry standard cubic foot (gr/dscf) per pouring station

40 CFR §63.7690(a)(5)(i)

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Particulate Matter

The expected particulate matter emissions from this process are 1.7 lbs/hr (7.4 TPY). This is based on AP-42 and a manufacturer's guaranteed control efficiency of 99.9%.

Operation and Maintenance Requirements:

The facility must always operate and maintain the iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The facility must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emission source subject to an emission limit in §63.7690(a)&(b) and the operation and maintenance requirements in 40 CFR §63.7710(a)&(b) as applicable.

40 CFR §63.7710 (a)&(b)

The facility must meet the general compliance requirements of §63.7720(a) through (c) as applicable. This includes development of a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3).

40 CFR §63.7720(a-c)

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emission limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years. The requirement to conduct performance tests every 5 years does not apply to an emission source for which a continuous emission monitoring system (CEMS) is used to demonstrate continuous compliance. The facility conducted performance testing on January 31, 2017. Therefore, the next scheduled testing for the unit is no later than January 31, 2022.

40 CFR §63.7731(a)

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the particulate matter emission limit found in §60.7690(a)(1) shall be determined by the following the test methods and procedures in §63.7732(b)(1)-(6), as applicable.

40 CFR §63.7732(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

The NESHAP for Iron and Steel Foundries found in 40 CFR Part 63, Subpart EEEEE requires specific monitoring for a baghouse as follows.

For each negative pressure baghouse equipped with a stack, the facility must at all times monitor the relative change in PM loadings using a bag leak detection system which meets the requirements in §63.7741(b).

In addition, for each baghouse, regardless of type, the facility must conduct the following inspections at their specified frequencies:

- Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
- Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
- Check the compressed air supply for pulse-jet baghouses each day.
- Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
- Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.
- Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. The facility does not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
- Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
- Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

40 CFR §63.7740(b) & (c)(1)-(8)

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

6. The facility must maintain records of the times the bag leak detection system sounded, and for each valid alarm, the time the facility initiated corrective action, the corrective action taken and the date on which corrective action was completed. Each record shall be maintained for a period of 5 years.

   40 CFR §63.7743(c)

7. The facility must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in the

scrap selection and inspection plan required in §63.7700(c). The records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable. Each record shall be maintained for a period of 5 years.

40 CFR §63.7744(a)

8. The facility must maintain a current copy of the operation and the maintenance plans required by §63.7710(b) onsite and available for inspection upon request. The plans must be kept for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of 40 CFR Part 63, Subpart EEEEE.

   40 CFR §63.7745(b)

9. The facility must report each instance of deviation which did not meet each emission limit in §63.7690 (including each operating limit) that applies. This includes periods of startup, shutdown and malfunction as applicable.

   40 CFR §63.7746(a & b)

10. The facility must comply with the notifications, reports, and records requirements specified in §63.7750, §63.7751(a-d), §63.7752(a-c) and §63.7753(a-c) as applicable.

    40 CFR §63.7750, §63.7751, §63.7752 and §63.7753

Compliance Assurance Monitoring (CAM)

These units are subject to 40 CFR Part 63 Subpart EEEEE (National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries) which was promulgated on April 22, 2004. 40 CFR 64.5(b)(1)(i) states that emission units subject to emission limitations or standards proposed by the Administrator after November 15, 1990, are exempt from CAM. Therefore, these units are not subject to the CAM requirements in 40 CFR Part 64. These units were previously incorrectly identified as subject to the CAM requirements and they have been removed from the renewal permit as requested by the facility.

Lost Foam Foundry Sand Recycling System EP015

In this process a conveyor line from pouring and cooling dumps the lower barrel castings onto a sand dump station where the sand is removed from the castings. The sand is

shaken out and then conveyed via separators and elevators to a cooler where the sand is cooled and aerated before be pneumatically transported to silos for storage and reuse.

Applicability:

This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Lost Foam Foundry Sand Recycling System has an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

This source is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, *"Compliance Assurance Monitoring"*, to include General Proviso #33.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

> Particulate matter emissions from the Lost Foam Foundry and Sand Recycling System shall not exceed the lesser of the Anti-PSD limit of 2.8 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.
>
> OR
>
> the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.
>
> **$E = 3.59\ (P)^{0.62}$ (P less than 30 tons per hour)**

$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

ADEM Admin. Code R. 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Expected particulate matter emissions from the Lost Foam Foundry Sand Recycling System are 2.8 lb/hr (12.3 TPY). These emissions are based on the AP-42 emission factors, and a control efficiency of 99%.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to

have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

Compliance Assurance Monitoring shall be conducted in accordance with the attached Appendix.

40 CFR Part 64

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

Because opacity would not be expected to exceed the standard when the baghouse is operating correctly, the monitoring of the pressure drop across the baghouse would be sufficient monitoring. However, the facility is utilizing visible emissions as a second performance indicator for the operation of the baghouse. The facility's CAM plan requires daily visible emissions inspections performed according to 40 CFR Part 60 Method 9 requirements.

40 CFR Part 64

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to Satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   40 CFR Part 64

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   40 CFR Part 64

4. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   40 CFR Part 64

Compliance Assurance Monitoring (CAM)

The unit is subject to Compliance Assurance Monitoring (CAM) for particulate matter since it is utilizing a control device to meet an applicable limit, and the pre-controlled potential PM emissions are greater than 100 TPY. In addition to the monitoring described above, the facility proposes to monitor pressure drop across the baghouse and to perform daily visible emissions checks. Details of the CAM Plan are attached to this document.

Continuous Shotblast with Baghouse EP004

In this process castings are moved by conveyor to the continuous shotblast. The castings are blasted by steel "BBs" to remove molding sand and shine the casting surface.

Applicability:

This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 "Major Source Operating Permits"

The Continuous Shotblast has an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

This source is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, *"Compliance Assurance Monitoring"*, to include General Proviso #33.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

Particulate matter emissions from the Continuous Shotblast shall not exceed the lesser of the Anti-PSD limit of 4.1 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.

OR

the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59\ (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Expected particulate matter emissions from the Continuous Shotblast are 1.17 lbs/hr (5.11 TPY). This is based on the baghouse having an outlet load of 0.01 grains/DSCF and operating 8760 hours.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

Compliance Assurance Monitoring shall be conducted in accordance with the attached Appendix.

40 CFR Part 64

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

Because opacity would not be expected to exceed the standard when the baghouse is operating correctly, the monitoring of the pressure drop across the baghouse would be sufficient monitoring. However, the facility is utilizing visible emissions as a second performance indicator for the operation of the baghouse. The facility's CAM plan requires daily visible emissions inspections performed according to 40 CFR Part 60 Method 9 requirements.

40 CFR Part 64

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to Satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05 and 40 CFR Part 64

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05

Compliance Assurance Monitoring (CAM)

The unit is subject to Compliance Assurance Monitoring (CAM) for particulate matter since it is utilizing a control device to meet an applicable limit, and the pre-controlled potential PM emissions are greater than 100 TPY. In addition to the monitoring described above, the facility proposes to monitor pressure drop across the baghouse and to perform daily visible emissions checks. Details of the CAM Plan are attached to this document.

Sand Recycling System with Baghouse EP009

This process uses fine dry sand that easily separates from the castings without shakers. The removed sand moves via belt conveyors, separators and elevators to a cooler where the sand is cooled and aerated before being pneumatically transported to silos for storage and reuse.

Applicability:

This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Continuous Shotblast has an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

This source is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, *"Compliance Assurance Monitoring"*, to include General Proviso #33.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

Particulate matter emissions from the Sand Recycling System shall not exceed the lesser of the Anti-PSD limit of 6.1 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.

OR

the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59 (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Expected particulate matter emissions from the Sand Recycling System are 6.1 lb/hr or 26.6 TPY. These emissions are based on a manufacturer's guarantee of 0.01gr/scf.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

Compliance Assurance Monitoring shall be conducted in accordance with the attached Appendix.

40 CFR Part 64

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

Because opacity would not be expected to exceed the standard when the baghouse is operating correctly, the monitoring of the pressure drop across the baghouse would be sufficient monitoring. However, the facility is utilizing visible emissions as a second performance indicator for the operation of the baghouse. The facility's CAM plan requires daily visible emissions inspections performed according to 40 CFR Part 60 Method 9 requirements.

40 CFR Part 64

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to Satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

Compliance Assurance Monitoring (CAM)

The unit is subject to Compliance Assurance Monitoring (CAM) for particulate matter since it is utilizing a control device to meet an applicable limit, and the pre-controlled potential PM emissions are greater than 100 TPY. In addition to the monitoring described above, the facility proposes to monitor pressure drop across the baghouse and to perform daily visible emissions checks. Details of the CAM Plan are attached to this document.

Disamatic Mold System with Baghouse EP019

The Disamatic Mold System is used to make specialty items. New sand is brought into three storage bins and pre-mix is brought into two storage bins. It is then mixed with reused sand from the Dideon Separator, mulled and molded.

Applicability:

This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Disamatic Mold System has an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

This source is subject to the applicable requirements of 40 CFR63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

0.010 grains of PM per dry standard cubic foot (gr/dscf) per pouring station

40 CFR §63.7690(a)(5)(i)

Particulate matter emissions from the Disamatic Mold System shall not exceed the lesser of the Anti-PSD limit of 25.0 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.

OR

the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59 (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

The Disamatic Mold System shall not operate more than 7,488 hours during any consecutive rolling twelve-month period.

Rule 335-3-14-.04(8)

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Expected particulate matter emissions from the Disamatic Mold System are 16.2 lbs/hr (60.7 TPY). This is based on the baghouse having an outlet load of 0.01 grains/DSCF and operating 7,488 hours.

Operation and Maintenance Requirements:

The facility must always operate and maintain the iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The facility must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emission source subject to an emission limit in §63.7690(a)&(b) and the operation and maintenance requirements in 40 CFR §63.7710(a)&(b) as applicable. The facility must comply with

40 CFR §63.7710 (a)&(b)

The facility must meet the general compliance requirements of §63.7720(a) through (c) as applicable. This includes development of a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3).

40 CFR §63.7720(a-c)

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emission limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years. The requirement to conduct performance tests every 5 years does not apply to an emission source for which a continuous emission monitoring system (CEMS) is used to demonstrate continuous compliance. The facility conducted performance testing on January 31, 2017. Therefore, the next scheduled testing for the unit is no later than January 31, 2022.

40 CFR §63.7731(a)

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the particulate matter emission limit found in §60.7690(a)(1) shall be determined by the following the test methods and procedures in §63.7732(b)(1)-(6), as applicable.

40 CFR §63.7732(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

The facility must for each capture and control device for an emission source subject to an emission limit in §63.7690(a), must demonstrate continuous compliance by complying with the requirements in §63.7745(a)(1) through (5) as applicable.

40 CFR §63.7745(a)

Emissions Monitoring:

The NESHAP for Iron and Steel Foundries found in 40 CFR Part 63, Subpart EEEEE requires specific monitoring for a baghouse as follows.

For each negative pressure baghouse equipped with a stack, the facility must at all times monitor the relative change in PM loadings using a bag leak detection system which meets the requirements in §63.7741(b).

In addition, for each baghouse, regardless of type, the facility must conduct the following inspections at their specified frequencies:

- Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
- Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
- Check the compressed air supply for pulse-jet baghouses each day.
- Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
- Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.
- Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their

sides. The facility does not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

- Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
- Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

40 CFR §63.7740(b) & (c)(1-8)

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

2. The facility shall maintain a record of hours of operation for the Disamatic Mold System. The hours of operation shall be recorded in the form of a monthly and twelve-month rolling total and shall be maintained on site in a form suitable for inspection for a period of 5 years.

   Rule 335-3-16-.05

3. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

4. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

5. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

6. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions,

and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05

7. The facility must maintain records of the times the bag leak detection system sounded, and for each valid alarm, the time the facility initiated corrective action, the corrective action taken and the date on which corrective action was completed. Each record shall be maintained for a period of 5 years.

   40 CFR §63.7743(c)

8. The facility must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in the scrap selection and inspection plan required in §63.7700(c). The records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable. Each record shall be maintained for a period of 5 years.

   40 CFR §63.7744(a)

9. The facility must maintain a current copy of the operation and the maintenance plans required by §63.7710(b) onsite and available for inspection upon request. The plans must be kept for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of 40 CFR Part 63, Subpart EEEEE.

   40 CFR §63.7745(b)

10. The facility must report each instance of deviation which did not meet each emission limit in §63.7690 (including each operating limit) that applies. This includes periods of startup, shutdown, and malfunction as applicable.

    40 CFR §63.7746(a & b)

11. The facility must comply with the notifications, reports, and records requirements specified in §63.7750, §63.7751(a-d), §63.7752(a-c) and §63.7753(a-c) as applicable.

    40 CFR §63.7750, §63.7751, §63.7752 and §63.7753

Compliance Assurance Monitoring (CAM)

This unit is subject to 40 CFR Part 63 Subpart EEEEE (National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries) which was promulgated on April 22, 2004. 40 CFR 64.5(b)(1)(i) states that emission units subject to emission limitations or standards proposed by the Administrator after November 15, 1990, are exempt from CAM. Therefore, these units are not subject to the CAM requirements in 40 CFR Part 64. This unit was previously incorrectly identified as subject to the CAM requirements and they have been removed from the renewal permit as requested by the facility.

Ten Pedestal Grinders with Dustex Baghouse EP011

The pedestal grinders are used to remove blemishes and molding seams from the castings.

Applicability:

These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Pedestal Grinders have an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

These sources are subject to the applicable requirements of 40 CFR 63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, *"Compliance Assurance Monitoring"*, to include General Proviso #33.

These sources are subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

These sources are subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

Particulate matter emissions from the Pedestal Grinders shall not exceed the lesser of the Anti-PSD limit of 5.6 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.

OR

the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59 (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

ADEM Admin. Code R. 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Expected particulate matter emissions from the Ten Pedestal Grinders are 0.33 lb/hr (1.5 TPY). This is based on the baghouse having an outlet load of 0.003 grains/DSCF and operating 8760 hours.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

Compliance Assurance Monitoring shall be conducted in accordance with the attached Appendix.

40 CFR Part 64

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

Because opacity would not be expected to exceed the standard when the baghouse is operating correctly, the monitoring of the pressure drop across the baghouse would be sufficient monitoring. However, the facility is utilizing visible emissions as a second performance indicator for the operation of the baghouse. The facility's CAM plan requires daily visible emissions inspections performed according to 40 CFR Part 60 Method 9 requirements.

40 CFR Part 64

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

Compliance Assurance Monitoring (CAM)

The unit is subject to Compliance Assurance Monitoring (CAM) for particulate matter since it is utilizing a control device to meet an applicable limit, and the pre-controlled potential PM emissions are greater than 100 TPY. In addition to the monitoring described above, the facility proposes to monitor pressure drop across the baghouse and to perform daily visible emissions checks. Details of the CAM Plan are attached to this document.

Pneumatic Sand System EP003

This process stores cooled and aerated sand in silos for reuse.

Applicability:

This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Pneumatic Sand System have an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

This source is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

Particulate matter emissions from the Triple Sand Silo A, and Dual Pre-mix Silo C shall not exceed the lesser of the Anti-PSD limit of 1.0 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.

OR

the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59\ (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour

P = Process weight per hour in tons per hour

The silos shall be loaded no more than 850 hr/yr in any consecutive twelve-month period. Only one silo can be loaded at a time.

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

ADEM Admin. Code R. 335-3-4-.01(1)

Expected Emissions:

Expected combined particulate matter emissions from the Pneumatic Sand System are 0.05 lb/hr (0.021 TPY). This is based on the baghouse having an outlet load of 0.03 grains/DSCF and operating 850 hours.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

Emissions Monitoring:

Particulate/Opacity

The facility shall perform a visual check, once per day, of each silo bin vent for each silo associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

Rule 335-3-16-.05

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to Satisfy the monitoring requirements. This shall include all problems observed,

excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05

2. The visible emission observation results will be documented using an ADEM visible emission observation report. If a visible emission observation is required using the 40 CFR, Part 60, Appendix A, Method 9, the results will be documented using an ADEM visible emissions observation report and the cause and corrective action taken will be documented in a for suitable for inspection. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05

3. Records of Triple Sand Silo A shall be recorded in a form suitable for inspection and these records shall be maintained for a minimum of 5 years.

   Rule 335-3-16-.05

4. Records of loading hours for Dual Pre-mix Silo C shall be recorded in a form suitable for inspection and these records shall be maintained for a minimum of 5 years.

   Rule 335-3-16-.05

Compliance Assurance Monitoring (CAM)

This subpart is applicable to an emission source provided the source meets the following criteria: it is subject to an emission limit or standard, it uses a control device to achieve compliance with the emissions limit or standard, and it has pre-controlled emissions from a regulated air pollutants that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source [40 CFR 64.2(a)]. These units do not have pre-controlled potential emissions greater than any major source threshold; therefore, Compliance Assurance Monitoring (CAM) does not apply.

Two Wheelabrator Tumblast Systems with Baghouse EP016

The Wheelabrator Tumblast Systems are used to remove molding sand and shine the casting surfaces.

Applicability:

These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Two Wheelabrator Tumblasts hve an enforceable limit in order to prevent them from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

These sources are subject to the applicable requirements of 40 CFR 63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

For particulate matter emissions, these sources are subject to the applicable requirements of 40 CFR Part 64, *"Compliance Assurance Monitoring"*, to include General Proviso #33.

These sources are subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

> Particulate matter emissions from the Wheelabrator Tumblast Systems shall not exceed the lesser of the Anti-PSD limit of 1.0 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.
>
> OR
>
> the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.
>
> **$E = 3.59\ (P)^{0.62}$ (P less than 30 tons per hour)**
> $E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
> Where E = Emissions in pounds per hour
> P = Process weight per hour in tons per hour

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Expected particulate matter emissions from the Two Wheelabrator Tumblast Systems are 0.33 lb/hr (1.5 TPY). This is based on the baghouse having an outlet load of 0.003 grains/DSCF and operating 8760 hours.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

Compliance Assurance Monitoring shall be conducted in accordance with the attached Appendix.

40 CFR Part 64

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

Because opacity would not be expected to exceed the standard when the baghouse is operating correctly, the monitoring of the pressure drop across the baghouse would be sufficient monitoring. However, the facility is utilizing visible emissions as a second performance indicator for the operation of the baghouse. The facility's CAM plan requires daily visible emissions inspections performed according to 40 CFR Part 60 Method 9 requirements.

40 CFR Part 64

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05 and 40 CFR Part 64

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05 and 40 CFR Part 64

Compliance Assurance Monitoring (CAM)

The unit is subject to Compliance Assurance Monitoring (CAM) for particulate matter since it is utilizing a control device to meet an applicable limit, and the pre-controlled potential PM emissions are greater than 100 TPY. In addition to the monitoring described above, the facility proposes to monitor pressure drop across the baghouse and to perform daily visible emissions checks. Details of the CAM Plan are attached to this document.

Fire Hydrant/Butterfly Valve Painting EP080 (various locations)

The Fire Hydrant/Butterfly Valve Painting operations occur throughout the plant, they include paint booths and dip tanks for rust inhibition as well as paint booths where hydrant bodies are spray painted before air drying or passing through drying ovens.

Applicability:

These sources are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 2 of 40 CFR Part 63, Subpart MMMM.

These sources are subject to the applicable requirements of 40 CFR 63, Subpart MMMM, *"National Emission Standards for Hazardous Air Pollutants for Surface coating of Miscellaneous Metal Parts and Products."*

Emissions Standards:

Hazardous Air Pollutants (HAP):

2.6 lb HAP/gal coating solid during each 12-month compliance period

40 CFR §63.3890(b)(1)

Expected Emissions:

Volatile Organic Compounds (VOC):

The potential VOC emissions from this process are 50 lbs/hr (219 TPY). This is based on all the VOCs being emitted and operating 8760 hours. This includes the organic HAP emissions.

Xylene:

The potential xylene emissions from this process are 1.00 lbs/hr (4.4 TPY). This is based on all the xylene being emitted and operating 8760 hours.

Toluene:

The potential toluene emissions from this process are 0.25 lbs/hr (1.1 TPY). This is based on all the toleune being emitted and operating 8760 hours.

MIBK:

The potential MIBK emissions from this process are 0.75 lbs/hr (3.3 TPY). This is based on all the MIBK being emitted and operating 8760 hours.

MEK:

The potential MEK emissions from this process are 0.32 lbs/hr (1.4 TPY). This is based on all the MEK being emitted and operating 8760 hours.

Compliance and Performance Testing:

Compliance with the organic HAP content limit shall be demonstrated by using the methods and procedures listed in §63.3951.

40 CFR §63.3951 Subpart MMMM

Emissions Monitoring:

The facility has chosen to demonstrate compliance using the emission rate **without add-on control option** §63.3891 (b) for complying with 40 CFR Part 63,

Subpart MMMM. To demonstrate compliance with this option, the coating operation must demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in §63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. The permittee must meet all the requirements of §63.3950, §63.33951 and §63.3952 to demonstrate compliance with the emission limit.

Recordkeeping and Reporting Requirements:

1. The use of any material which exceeds the applicable organic HAP content requirements in §63.3890 must be reported in the semiannual compliance report and must include the information in §63.3920(a)(6)(i)-(iii) as applicable.

   40 CFR §63.3920

2. The facility must maintain records of the calculation of the organic HAP content for each coating, using Equations 1, 1A through 1C, and 2 of §63.3951 as applicable. Each record shall be maintained for a period of 5 years.

   40 CFR §63.3930(c)(3)

3. The facility shall maintain records as specified in §63.3931(a-c) available for expeditious review according to §.63.10(b)(1). Each record shall be maintained for 5 years following date of each occurrence, measurement, maintenance, corrective action, report, or record. The facility must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §.63.10(b)(1). The facility may keep the records off-site for the remaining 3 years.

   40 CFR §63.3931(a-c)

Compliance Assurance Monitoring (CAM)

This subpart is applicable to an emission source provided the source meets the following criteria: it is subject to an emission limit or standard, it uses a control device to achieve compliance with the emissions limit or standard, and it has pre-controlled emissions from a regulated air pollutants that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source [40 CFR 64.2(a)]. This source does not utilize a control device to control any criterion pollutant; therefore, it is not subject to Compliance Assurance Monitoring (CAM).

Intermittent Shotblast with Baghouse EP005

In this process castings are moved by conveyor to the intermittent shotblast. The castings are blasted by steel "BBs" to remove molding sand and shine the casting surface.

Applicability:

This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits"*

The Intermittent Shotblast has an enforceable limit in order to prevent it from being subject to the provisions of ADEM Admin. Code r. 335-3-14-.04, *"Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]."*

This source is subject to the applicable requirements of 40 CFR 63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, *"Compliance Assurance Monitoring"*, to include General Proviso #33.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-04. *"Control of Particulate Matter Emissions-Process Industries-General."*

Emissions Standards:

Particulate Matter

> Particulate matter emissions from the Intermittent Shotblast shall not exceed the lesser of the Anti-PSD limit of 1.75 lb/hr as required by ADEM Admin Code r. 335-3-14-.04.
>
> OR
>
> the allowable set by ADEM Admin Code r. 335-3-4-.04(1), which states no person shall cause or permit the emission of particulate matter in excess of the amount for the process weight per hour allocated to such source accomplished by the use of the equation:.

$E = 3.59 (P)^{0.62}$ (P less than 30 tons per hour)
$E = 17.31(P)^{0.16}$ (P greater than 30 tons per hour)
Where E = Emissions in pounds per hour
P = Process weight per hour in tons per hour

The Intermittent Shotblast shall not operate more than 6000 hr/yr in any consecutive twelve-month period.

Opacity

Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.

Rule 335-3-4-.01(1)

For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

40 CFR §63.7690(a)(7)

Expected Emissions:

Expected particulate matter emissions from the Intermittent Shotblast are 1.37 lb/hr (6.0 TPY). This is based on the baghouse having an outlet load of 0.01 grains/DSCF and operating 6000 hours.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

Compliance Assurance Monitoring shall be conducted in accordance with the attached Appendix.

40 CFR Part 64

Particulate Matter

The facility shall perform a weekly inspection of the hopper, fan, and cleaning cycle for proper operation and complete a visual check of all hoods and ductwork to verify proper operation of the baghouse. The facility will inspect baghouse structure, access doors, door seals and bags annually. In addition, the facility will perform an internal inspection of the baghouse hoppers to verify proper operation.

Rule 335-3-16-.05

Opacity

Because opacity would not be expected to exceed the standard when the baghouse is operating correctly, the monitoring of the pressure drop across the baghouse would be sufficient monitoring. However, the facility is utilizing visible emissions as a second performance indicator for the operation of the baghouse. The facility's CAM plan requires daily visible emissions inspections performed according to 40 CFR Part 60 Method 9 requirements.

40 CFR Part 64

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

2. The visible emission observation results will be documented using an ADEM visible emission observation report.

   Rule 335-3-16-.05

3. The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the monitoring requirements. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

4. The facility shall maintain a record of differential pressure drop readings performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and CFR Part 64

5. The facility shall maintain a record of all the calibrations of the magnehelic/photohelic. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

   Rule 335-3-16-.05 and 40 CFR Part 64

6. Records of hours of the hours of operation of the Intermittent Shotblast shall be recorded in a form suitable for inspection and these records shall be maintained for a minimum of 5 years.

   Rule 335-3-16-.05

Compliance Assurance Monitoring (CAM)

The unit is subject to Compliance Assurance Monitoring (CAM) for particulate matter since it is utilizing a control device to meet an applicable limit, and the pre-controlled potential PM emissions are greater than 100 TPY. In addition to the monitoring described above, the facility proposes to monitor pressure drop across the baghouse and to perform daily visible emissions checks. Details of the CAM Plan are attached to this document.

Core Production EP092

In the core production process sand, resin, and a catalyst DMIPA (dimethylisopropylamine) are combined to produce sand cores.

Applicability:

This source is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03 *"Major Source Operating Permits"*

This source is subject to the applicable requirements of 40 CFR63, Subpart EEEEE, *"National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries."*

The Facility is subject to the applicable requirements of 40 CFR Part 63, Subpart A, *"General Provisions,"* as specified in Table 1 of 40 CFR Part 63, Subpart EEEEE.

This source is subject to the applicable requirements of ADEM Admin. Code r 335-3-4-01. *"Control of Particulate Matter Emissions-Visible Emissions."*

Emissions Standards:

Volatile Organic Hazardous Air Pollutant (VOHAP)

> The unit utilizes dimethylisopropylamine (DMIPA) in the cold box molds and is not subject to any specific VOHAP limit at this time.
>
> 40 CFR §63.7690

Opacity

> Not more than one 6-minute average > 20% in 1 hour and no 6-minute average > 40%.
>
> Rule 335-3-4-.01(1)
>
> For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.
>
> 40 CFR §63.7690(a)(7)

Expected Emissions:

Particulate Matter

The expected particulate matter emissions from this process are 0.13 lbs/hr (0.57 TPY). This is based on engineering estimates and operating 8760 hours.

Compliance and Performance Testing:

Method 5 of 40 CFR 60, Appendix A, shall be used in the determination of particulate matter emissions.

Rule 335-3-1-.05

Method 9 of 40 CFR 60, Appendix A, shall be used in the determination of opacity.

Rule 335-3-1-.05

The facility shall perform performance tests to demonstrate compliance with the fugitive opacity limit in §63.7690(a)(7) no less frequently than once every 6 months. The facility last conducted an opacity test on October 10, 2019.

40 CFR §63.7731(b)

Compliance with the fugitive emission opacity limit in §63.7690(a)(7) from buildings or structures housing any iron and steel foundry emissions source at the iron and steel foundry shall be determined using EPA Method 9, as found in Appendix A of 40 CFR 60. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the openings or vents in lieu of performing observations for each opening or vent from the building or structure.

40 CFR §63.7732(d)

Emissions Monitoring:

Particulate Matter/Opacity

This source is subject to no additional specific requirements other than those listed in the General Provisos.

Recordkeeping and Reporting Requirements:

1. The facility shall maintain a record of all Method 9 observations performed to satisfy the monitoring requirements. This shall include all problems

observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.

Rule 335-3-16-.05

Compliance Assurance Monitoring (CAM)

This subpart is applicable to an emission source provided the source meets the following criteria: it is subject to an emission limit or standard, it uses a control device to achieve compliance with the emissions limit or standard, and it has pre-controlled emissions from a regulated air pollutants that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source [40 CFR 64.2(a)]. This source does not utilize a control device to control any criterion pollutant; therefore, it is not subject to Compliance Assurance Monitoring (CAM).

Compliance Assurance Monitoring (CAM)

The facility is subject to 40 CFR Part 64 requirements for Compliance Assurance Monitoring. The pollutant-specific emissions units (PSEU) of concern at Mueller are not "Large PSEU" and therefore are classified as "Other PSEU" per 40 CFR 64.5(b). The CAM plan that the facility submitted addresses particulate matter from several PSEUs controlled by the use of baghouses.

The following are the Compliance Assurance Monitoring requirements for the facility:

CAM Plan for Lost Foam Foundry Sand Recycling with Baghouse
(Emission Unit 015)

	Indicator 1	Indicator 2
I. Indicator	Visible Emissions	Differential Pressure
Measurement Approach	Measured using EPA Reference Method procedures	Measured using a Magnehelic/Photohelic
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a pressure differential below 1.0 inches of H_2O and greater than 8.0 inches of H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria		
A. Data Representativenes	Measurement is being made at the emission point (baghouse exhaust)	The magnehelic/photohelic measures the pressure differential between the inlet and outlet of the baghouse.
B. Verification of Operation Status	Not Applicable	Not Applicable
C. QA/QC Practices and Criteria	The observer will be certified with Reference Method 9	The magnehelic/photohelic will be calibrated annually. If abnormal pressure is noted, pressure taps will be checked.
D. Monitoring Frequency	An instantaneous observation will be performed daily.	The pressure drop will be monitored daily.
E. Data Collection Procedures	The VE observation will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
F. Averaging Period	Instantaneous	Instantaneous

CAM Plan for Continuous Shotblast (Emission Unit 004)

	Indicator 1	Indicator 2
I. Indicator	Visible Emissions	Differential Pressure
Measurement Approach	Measured using EPA Reference Method procedures	Measured using a Magnehelic/Photohelic
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a pressure differential below 1.0 inches of H_2O and greater than 6.0 inches of H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria A. Data Representativenes	Measurement is being made at the emission point (baghouse exhaust)	The magnehelic/photohelic measures the pressure differential between the inlet and outlet of the baghouse.
B. Verification of Operation Status	Not Applicable	Not Applicable
C. QA/QC Practices and Criteria	The observer will be certified with Reference Method 9	The magnehelic/photohelic will be calibrated annually. If abnormal pressure is noted, pressure taps will be checked.
D. Monitoring Frequency	An instantaneous observation will be performed daily.	The pressure drop will be monitored daily.
E. Data Collection Procedures	The VE observation will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
F. Averaging Period	Instantaneous	Instantaneous

CAM Plan for Sand Recycling System
(Emission Unit 009)

	Indicator 1	Indicator 2
I. Indicator	Visible Emissions	Differential Pressure
Measurement Approach	Measured using EPA Reference Method procedures	Measured using a Magnehelic/Photohelic
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a pressure differential below 1.0 inches of H_2O and greater than 8.0 inches of H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria		
A. Data Representativenes	Measurement is being made at the emission point (baghouse exhaust)	The magnehelic/photohelic measures the pressure differential between the inlet and outlet of the baghouse.
B. Verification of Operation Status	Not Applicable	Not Applicable
C. QA/QC Practices and Criteria	The observer will be certified with Reference Method 9	The magnehelic/photohelic will be calibrated annually. If abnormal pressure is noted, pressure taps will be checked.
D. Monitoring Frequency	An instantaneous observation will be performed daily.	The pressure drop will be monitored daily.
E. Data Collection Procedures	The VE observation will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
F. Averaging Period	Instantaneous	Instantaneous

CAM Plan for Ten Pedestal Grinders (Emission Unit 011)

	Indicator 1	Indicator 2
I. Indicator	Visible Emissions	Differential Pressure
Measurement Approach	Measured using EPA Reference Method procedures	Measured using a Magnehelic/Photohelic
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a pressure differential below 1.0 inches of H_2O and greater than 6.0 inches of H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria		
A. Data Representativenes	Measurement is being made at the emission point (baghouse exhaust)	The magnehelic/photohelic measures the pressure differential between the inlet and outlet of the baghouse.
B. Verification of Operation Status	Not Applicable	Not Applicable
C. QA/QC Practices and Criteria	The observer will be certified with Reference Method 9	The magnehelic/photohelic will be calibrated annually. If abnormal pressure is noted, pressure taps will be checked.
D. Monitoring Frequency	An instantaneous observation will be performed daily.	The pressure drop will be monitored daily.
E. Data Collection Procedures	The VE observation will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
F. Averaging Period	Instantaneous	Instantaneous

CAM Plan for Two Wheelabrator Tumblast Systems (Emission Unit 016)

	Indicator 1	Indicator 2
I. Indicator	Visible Emissions	Differential Pressure
Measurement Approach	Measured using EPA Reference Method procedures	Measured using a Magnehelic/Photohelic
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a pressure differential below 1.0 inches of H_2O and greater than 8.0 inches of H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria A. Data Representativenes	Measurement is being made at the emission point (baghouse exhaust)	The magnehelic/photohelic measures the pressure differential between the inlet and outlet of the baghouse.
B. Verification of Operation Status	Not Applicable	Not Applicable
C. QA/QC Practices and Criteria	The observer will be certified with Reference Method 9	The magnehelic/photohelic will be calibrated annually. If abnormal pressure is noted, pressure taps will be checked.
D. Monitoring Frequency	An instantaneous observation will be performed daily.	The pressure drop will be monitored daily.
E. Data Collection Procedures	The VE observation will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
F. Averaging Period	Instantaneous	Instantaneous

CAM Plan for Intermittent Shotblast (Emission Unit 005)

	Indicator 1	Indicator 2
I. Indicator	Visible Emissions	Differential Pressure
Measurement Approach	Measured using EPA Reference Method procedures	Measured using a Magnehelic/Photohelic
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a pressure differential below 1.0 inches of H_2O and greater than 6.0 inches of H_2O. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria A. Data Representativenes	Measurement is being made at the emission point (baghouse exhaust)	The magnehelic/photohelic measures the pressure differential between the inlet and outlet of the baghouse.
B. Verification of Operation Status	Not Applicable	Not Applicable
C. QA/QC Practices and Criteria	The observer will be certified with Reference Method 9	The magnehelic/photohelic will be calibrated annually. If abnormal pressure is noted, pressure taps will be checked.
D. Monitoring Frequency	An instantaneous observation will be performed daily.	The pressure drop will be monitored daily.
E. Data Collection Procedures	The VE observation will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, date, and name of the observer.
F. Averaging Period	Instantaneous	Instantaneous

Recommendation

Based on the above analysis, I recommend that, pending the 30-day public comment period and 45-day EPA review period, Mueller Company be issued a renewal for Major Source Operating Permit No. 711-0013. The facility should be able to meet the requirements of this permit and all applicable state and federal air pollution regulations.

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Paul J. Vaccaro
Industrial Minerals Sections
Energy Branch
Air Division

June 4, 2020
Date